

HILLMAN

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 19 July 1974

MEMORANDUM

Third Research Programme
"ERGONOMICS AND REHABILITATION"

Directorate General for
Social Affairs

Luxemburg, June 1974

MEMORANDUM

Third Research Programme
"ERGONOMICS AND REHABILITATION"

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Introduction

This programme proposes that new action should be promoted in two sectors of social research - accident prevention (1) and rehabilitation of the victims of accidents.

The research programmes authorised by the ECSC High Authority in 1964 and 1966 in these two areas have been completed: the money has been fully used, the work has been successfully carried out, the results have been distributed and many of them applied by the Commission in its recent activities. The first part of the memorandum provides the details.

The second part introduces a new programme which puts prevention and rehabilitation into the same category because they are part of the same effort to adapt the man to the work and the work to the man, and because this adaptation must be effected in industry even if the method has been worked out elsewhere.

The proposed programme commits the Commission to organise and finance the work; it will succeed if interest can be aroused in scientific circles and efforts in the social field coordinated.

(1) The essentially human aspects of accident prevention will be discussed here. Other programmes cover the aspects of industrial safety and health.

I. PREVIOUS WORK

Accident prevention - results and present situation

The second accident prevention programme entitled "Physiology and psychology at work" authorised on 4 November 1964 with an appropriation of 3.2 million units of account enabled information to be acquired and made available for use.

The information collected covers the human factors of security - the man-working environment, man-machine and man-organisation relationships. Summaries have been drawn up to facilitate both the practical use of this information, as part of the work of the Steel Industry Safety and Health Commission and the Mines Safety and Health Commission, and its distribution in professional circles. Results on the following have therefore been made available:

- a. Job stresses environmental factors and their effects, with particular reference to:
 - physically arduous work (2);
 - work at high temperatures (2) and the effects of work in a hot environment (1);
 - noise and its effects (2);
 - vibrations and passive movements (1).
- b. The psychology of work:
 - the problems of sensory effort and mental fatigue in connection with supervisory work and jobs involving remote control (3);
 - problems of organisation; the results of the "Community research into Safety" (3), were used to investigate the relationship between safety and the reliability of complex systems, with a view to training (3).

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- (1) Summary being drawn up
 - (2) Being translated or printed
 - (3) Document available

The applications include:

1. Safety training (3). An experimental seminar has been organized for 1974 on the basis of the information and teaching material assembled during the research.
2. The development of protective equipment, to meet the special requirements of the iron and steel and coal industries and testing methods (currently protection against heat and flames).
3. The ergonomic arrangement of the work places. In the field of ergonomics the aim of the Community has been to set up a network of interdisciplinary teams (one per industry in each country) linked to a central secretariat and able, at the request of the enterprises, to investigate an unsatisfactory work place and propose an arrangement to meet both the demands of the workers and the production requirements. These teams already exist in the 6 original ECSC Member Countries and are being formed in Great Britain; the results of their studies have been distributed among all the ECSC enterprises; details of their experience in the practice of corrective ergonomics (1), and in the methods and criteria applicable to the design of work places and work shops (2) have been given.

This new brief résumé may not make the practical value of this information and its applications very clear.

Firstly, this information and its applications fulfil the Commission's general concern to carry out a policy of instigation in the matter of safety and provide enterprises with the practical means of reducing:

- the specific risks of illness connected with the environmental factors (harmful effects of dust, gas, the production of energy): an industrial hygiene policy meet present day requirements;

- (1) Summary being prepared
- (2) Being translated and printed
- (3) Document available

- fatigue and accident risks connected with the bad conditions at the work place, the jobs given to the workers or the organization of the work: safety and welfare must be encouraged by a better use of the human and technical resources of the enterprise.

These aims cannot be achieved without the help of the workers; the means for this must be available; it is therefore important for supported research projects to result in a simple and effective method tried and tested under actual working conditions.

Secondly, in working out and assessing these means, this research is contributing to the exchange of experience organized by the Steel Industry Safety and Health Commission and the Mine Safety and Health Commission (mentioned earlier), and the definition of codes of good practice for many jobs in the iron and steel and coal industries. Communication on safety measures within the professional sector of the ECSC is, therefore, extensive.

The research is not considered as an academic exercise but as a way of gathering information and encouraging its application. It thus forms a part of the general accident prevention and improvement of working conditions in the ECSC industries.

Rehabilitation - results and present situation

The research programme authorised on 24 June 1964 and provided with an appropriation of 1.8 million units of account was entitled "Industrial traumatology and rehabilitation of victims of industrial accidents". It gave encouragement to:

- a. basic research, particularly into bone lesions (the repair of fractures, chronic secondary effects leading to deterioration (1) and the nervous system;

(1) A symposium has been arranged and a document published on para-osteoarthritis

- b. clinical research with particular emphasis on the subjects of cranial traumas, paraplegics and amputees, to ensure the best methods of observation, forecast and treatment and to facilitate the subsequent rehabilitation and reintegration of the patients;
- c. research into the bio-technical aspects of rehabilitation, with particular reference to the re-learning of movements (after traumatic lesions and surgical operations) and artificial limbs.

In the case of burns, a second programme, authorised on 18 June 1966 with an appropriation of 1.5 million u.a., completed these projects; the research went into the various clinical aspects of burns (shock, infection, renal lesions,...) and the biology and practice of skin grafts.

Study and information meetings on industrial traumatology were organized in Luxemburg from 11 to 13 April 1973 (1) as a result of the information acquired from these two programmes. These meetings provided an opportunity for the results of this and other Community research to be submitted to the people concerned for discussion: practical recommendations about first aid for the victims of accidents (2); statistics on the type of traumatic lesions found in mining and in the iron and steel industry.

Many organizations are involved in the application of this information; there are two aspects to this.

Firstly, joint action by the enterprise and the relevant health and social authorities is required in casing for an injured person, with all that this implies (rescuing the victim, treating him, facilitating his rehabilitation and return to work or, if necessary, finding him another type of job). In order to establish a structure of this type and have an influence on it, the work of the Community had to go beyond the ECSC sector and provide more than

(1) Minutes being published.

(2) Codes of good practice, drawn up by the Steel Industry Safety and Health Commission and Miners' Safety and Health Commission.

research and information. This was done; in 1970 the Commission undertook to promote activities over a wide field in the rehabilitation of the disabled (European colloquium in 1971 and educational seminars in the years following; proposal for an action programme on occupational rehabilitation which has just been approved by the Council); moreover, where this research produced useful technical discoveries, the Commission made sure that these were manufactured and distributed so they would be actually available and accessible.

Secondly, some rehabilitation problems are peculiar to the enterprise and can only be solved from within. These are mainly connected with the return to work of the victims of industrial accidents or diseases: their working capacity has to be assessed, a suitable work place has to be found and possibly reorganized and the health of the person must be supervised. There are, however, more general implications: many workers have minor disabilities which are adequately compensated for; when the technical or economic situation necessitates a change in work, this compensation may become inadequate and the person ill adapted. An ad-hoc meeting on 16 and 17 February 1971 with all the consultative committees (1) emphasized the following points:

1. special practical measures, carried out in individual cases, must lead to team work so that all aspects of adaptation, and not only the medical aspects, can be considered;
2. establishing and maintaining good work adaptability is a problem concerning the majority of workers and should be of constant concern to the enterprise whose development prospects depend upon it;
3. in an industrial enterprise, adaptation does not arise in the natural course of events but is the result of deliberate action which:
 - takes all the workers and all the work places into consideration with a view to improvement and promotion,
 - functions with the help of the workers themselves.

(1) the Research Committees responsible for the programmes mentioned, the Producers and Workers Subcommittee for Industrial Safety and Medicine, the Government Experts Committees "Industrial Medicine and Rehabilitation" and "Safety and Ergonomics".

4. results of good work adaptation are:

- job satisfaction and operator safety;
- stability of the work force (minimum absenteeism and staff turnover);
- a balance between the age groups of the people employed by the enterprise; these are all contributory factors to economic success.

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On the basis of these observations and the conclusions of the preceding chapter, the consultative committees have recommended a new research programme of the type defined by them in 1972. Preparations for this were made in 1973 (as far as the organization of ergonomic activities was concerned). In proposing this programme the Commission stresses the human and social aspects of the enterprise which are essential for its continuation and development. As this programme relies largely on the work of industrial teams and as these are given considerable freedom in diagnosing situations and selecting objectives, an analysis of technological developments in the ECSC industries and their effects on the work will not be given here. This type of analysis was, in any case, provided recently when the industrial health programmes were launched.

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II. - INTRODUCTION OF A NEW RESEARCH PROGRAMME

In this programme, the Commission of the European Communities :

1. invites the ECSC industries

- to work towards a better understanding of the work places, the jobs for which the operators are responsible and the aptitudes and aspirations of their staff;
- to improve the work places and jobs so as to reduce the risks and to make the work more satisfying; to anticipate at the design stage, any problems in connection with the practical use of new industrial plant and provide solutions to them;
- to aim to use their staff to the best advantage, taking ability and aspirations into account, and to anticipate any training and habilitation which might become necessary as a result of economic and technical developments;
- to involve the workers and their organizations in the realisation of these aims;

2. will initiate new activities in the fields of rehabilitation and ergonomics so that the above-mentioned aims can be achieved. As compared with the previous programmes, this programme :

- retains a practical basis but aims at the same time at the acquisition of new information, its practical use and an objective assessment of the advantages thus obtained; in this assessment priority is given to human and social considerations;
- provides increasing scope for the enterprise itself to take the initiative and gives more power to the industrial teams : these teams set up as part of the previous programme in order to promote the ergonomic organization of work, are called upon to take the human aspects of adaptation and change in work into consideration, at their own level;

- aims to maintain and strengthen co-operation between the industrial teams, the training and rehabilitation centres and the biological and technical institutes taking part in the programme.

It can be seen that this programme puts less emphasis on the specific problems of various categories of disabled persons than the previous programmes. The Commission considers that the problems of functional rehabilitation after traumatic lesions have now been more or less overcome, at least as far as the locomotor apparatus is concerned; however, the reintegration of these re-trained disabled persons into the working situation remains a problem both for those involved and for the enterprises. As the general problems of occupational rehabilitation have been studied elsewhere, the ECSC can concentrate on methods relevant to iron and steel and coal enterprises. The aims of this programme are as follows :

1. Continuation and extension of the Community ergonomic policy

- 1.1 Practical methods of assessing stresses at work in the conditions which actually obtain and their effects (physical, sensory and mental effort, factors relating to the working environment).
- 1.2 Experiments and demonstrations with work places and work organization so that suggestions can be put forward about the way in which the work can be arranged and the staff trained.
- 1.3 The problems connected with the ergonomic design of new plant and the need to provide for this.
- 1.4 Improving, testing and approving protective means and materials to meet the requirements of the ECSC industries.

Remarks :

- a. This ergonomic project aims to reduce the stress (and therefore the risks and the fatigue which this engenders) and at the same time to improve efficiency, by adapting the work.

b. Appendix I gives a guide to the work places and stresses at work. Priority is given to the following :

- work places where there is considerable sensory and mental effort, including those which occur most frequently (1);
- work places and activities connected with transport;
- maintenance and running repairs;
- the arrangements needed to employ old and disabled people to the best advantage.

c. The general organization of these ergonomic activities and the methods to be employed in putting them into practice are the result of the experiment carried out in the course of the preceding programme; they are described in Appendix II. It is very important that decisions about the financing of the projects should be made fairly soon; the consultation procedure for this should, therefore, be short and involve the following :

- scientific advisers;
- the Producers and Workers Sub-Committee.

2-3 Understanding of the enterprise (2), the way it operates and its staff
- the effects of some of the stresses involved in the work

- 2.1 Personal and general ideas about the jobs and safety measures. The relationship between job enrichment, increased safety and recognition of professional experience.
- 2.2 Methods of analyzing accidents and damage to property; their application to preventative measures; educational aspects.
- 2.3 Assessment of the industrial safety and other social and health aspects of the enterprise (production unit).
- 2.4 Long-term planning in the employment and promotion of staff in the enterprise.

(1) In principle, neither the high price nor the technical features of a machine should give an individual or unusual work place priority, where research and organization is concerned, over a normal work place involving a large number of people

(2) "Enterprise" here means an organized body consisting of management and operatives.

- 3.1 Reduction of working capacity in the aging worker; methods of observation, assessment and provision; practical measures to make the best use of these members of the staff.
- 3.2 Quantitative assessment of mental work; optimisation of sensory and mental effort in these working conditions.
- 3.3 Epidemiology and measures to avoid deterioration in hearing (noise level at the work places; supervision and employment of subjects whose hearing has been affected).
- 3.4 Research into the transmission and distribution of forces in the system subjected to vibration, jolting, simple traumas; effects of vibrations on sensory and motor functions; ergonomic and preventative measures.
- 3.5 Tolerance of physically arduous work in unfavourable climatic conditions. Effects of the climatic conditions on performance.
- 3.6 The noxious effects of nitrogen oxides given off by diesel engines in mines.
- 3.7 Research into the possible biological effects of high- and low-frequency electrical and electro-magnetic fields.

The Commission of the European Communities, in association with the Producers and Workers Sub-Committee for Industrial Safety and Medicine, will approach the relevant institutes to submit research projects.

4. Biological and metabolic research; application to rehabilitation

- 4.1 Functional evaluation of rehabilitation and industrial medicine; assessment of capacity and aptitude, standardisation of criteria for assessment.
- 4.2 Optimum use of any capacity for work which the old or disabled person retains : problems related to the choice and possible adaptation of the work place (N.B. : the aim is not to adapt one or two work places to fulfill exceptional requirements, but to keep a check on the statistical frequency of minor disabilities and their long-term effects, in order to form proposals which can be generally applied in industry).

- 4.3 The working capacity of the subject of a cranial trauma with a view to rehabilitation (assessment of the overall aptitude for work, in relation to the conditions and requirements of work in industry).
- 4.4 Rachis aging and its effects on the working capacity.
- 4.5 Slight and moderately severe burns in the context of industrial medicine :
 - diagnosis of the extent (particularly in the case of multiple burns caused by splashing);
 - effectiveness of new treatment;
 - progress of burns caused by splashing metal or other materials (slag).
- 4.6 Tolerance and use of protheses in amputees working in industry (types of apparatus, materials used, role played by the scar).

The Commission of the European Communities is to make a public appeal for research projects on these subjects and will carry out any parallel work necessary to clarify the practical aspects of the problems which arise.

5. Selective investigations into special aspects of safety and rehabilitation in the ECSC industries

Investigations into the practical problems relating to the health and rehabilitation of workers could be :

- suggested by works' doctors in ECSC industries :
- carried out within their medical units with the means at their disposal.

A grant might be provided for this research after it has been discussed by the Working Party on "ECSC Industrial Medicine" and on approval by the Producers' and Workers' Sub-Committee for Industrial Safety and Medicine.

III. Implementation of the programme

Launching and duration

The various sections of the programme will be carried out in the order outlined above. Priority will thus be given to the ergonomic work which is now being prepared by the teams and should start as soon as possible. The programme should have been completed within 5 years as the average time required for the research is between 2 and 4 years.

Financial aspects

The estimated appropriation for this programme is based on the following considerations:

- a) The proposed programme follows on from previous work for which appropriations amounting to a total of 6.5 million units of account were granted (see pages 3, 5, 6).
- b) The amount of research in each area tends to increase as a result of a general desire to improve working conditions.
- c) Research costs and the number of Member Countries have also increased so that it has been necessary to be selective and to concentrate efforts on a restricted number of subjects.
- d) The Commission is well informed about the number, equipment and capacity of the research institutes and industrial teams; these institutes and teams have already worked out a series of projects which provide a good basis from which to work out the financial requirements.
- e) The appropriation must cover operating costs for the whole the programme. These costs include
 - scientific coordination and cooperation;
 - experts' and research workers' expenses;
 - editing and distribution of reports, etc.
 - bibliographical documentation.

This programme appears to justify an overall appropriation of 9.0 million units of account when all these points have been taken into consideration and a careful estimate of requirements has been made.

In accordance with the wishes of the consultative committees, this amount should be distributed among the above-mentioned activities as follows:

- A. Continuation and extension of the Community ergonomic policy: 5.0 mill. u.a.
- B. Understanding of the enterprise, the way it operates and its staff - the effects of some of the stresses involved in the work: . . . 2.0 mill. u.a.
- C. Biological and metabolic research; application to rehabilitation: 1.2 mill. u.a.
- D. Selective investigations into special aspects of safety and rehabilitation in the ECSC industries: 0.4 mill. u.a.
Operating costs: 0.4 mill. u.a.

As in the past, Community aid will constitute a contribution to the defraying of direct costs arising from each research project.

Coordination of work, distribution of results

As for the previous programmes, a research committee will be set up to take charge of the scientific aspects of the programme such as:

- the initial assessment of the projects;
- the organization of scientific cooperation between the specialist working parties on various subjects in the programme;
- the summarizing of results and informing of those concerned;
- the contacts to be made with those responsible for other aspects of the work.

The Commission of the European Communities will take appropriate steps to distribute the information and promote its application.

PURSUIT AND DEVELOPMENT OF THE COMMUNITY ERGONOMICS ACTION(1974 - 1978)Workplaces in mines calling for improvementsWorkplaces in mines, with nature of principal stressesWorkplace. activitiesNature of stresses

a) work at coal-face

haulage and handling at
the face()
(postures, muscular effortshandling appliances at the
face()
(

b) Coal-winning

driving and accompanying coal-
winning machinesintermittent physiological over-
loads (circulatory energetics),
psychological stress (uncertainty,
waiting, effects on rhythm and
performance)operation of coal-getting
machinespostures, muscular efforts, compa-
tibility of controlsother workplaces geared to
rhythm of coal-winningintermittent overloads in work,
stresses (hrs worked, methods of
payment, ill-defined or exceptional
work situations)setting and advancing
conventional steel supports
(at faces and in roads)efforts, postures, irregular work
rhythm)

powered support	stresses insufficiently known
c) various, below ground	
tunnelling)
support in stone drifts	(noise, vibrations
)
workplaces of railway motor tractor drivers	seats, vibration, visibility, controls
d) work at surface	
operating stations for hoisting appliances and surface transport	seats, vibration, visibility, controls
maintenance and repairs	psychic stress (alternation if foreseeable and unforeseeable tasks)
electrical engineer's job	requirements and stresses insufficiently known
coal industry (recently introduced workplaces)	requirements and stresses insufficiently known (reclassification of workers unfit for the job)

Principal stresses observed at workplaces in mines

Nature of principal stress

Workplaces, activities

a) <u>Abnormal efforts</u> (resulting from heavy work performed in special postures)	Haulage and handling at coal-face Setting and advancing steel supports
b) <u>Physiological overloads and psychic stresses</u> (resulting from work performed at a variable rythm imposed by the machine)	Driving and accompanying coal-winning machines Execution of caving cycle

c) Psychic stresses

(resulting from alternation of foreseeable and unforeseeable tasks)

Maintenance and repairs at coal-face or at surface

d) Faults of adaptation

- operation of machines
- design of appliances
- drivers' workplaces (seats, vibrations, visibility, controls)

Coal-winning machines
Handling appliances at coal-face
Hoisting appliances, at surface and below ground
Haulage appliances, at surface and below ground
Railway motor tractors below ground

e) Noise and vibrations

Tunnelling
Support in stone drifts

f) Stresses still ill-defined

Powered support
New workplaces in coal industry
Electrical engineer's job

Workplaces in the iron and steel industry calling for improvements

Workplaces in the iron and steel industry, with nature of principal stresses

Workplaces, activities

Nature of stresses

a) Blast furnaces

Casting, blast furnace

Heat, gas, dust

b) Coke ovens

Roof of coke ovens

(
) Heat, gas, dust
(

Oven charging platforms

c) Steelwork furnaces and converters

Casting, furnaces and converters

Heat, working postures, at times noxious vapours

Removing refractory linings (furnaces)	Heat, dust, working postures
Restoring refractory linings of furnaces) Heat, postures, possible (pollution
d) Rolling mills	
Deseaming slabs	Heat, working postures, at times nexious vapours
Shearing heavy plate	Noise
Roller-track for heavy plate	Noise
Pickling lines, sheet	Noise
Packing of sheet	Working postures, lighting
Inspection of tinplate	Working postures, lighting
e) Auxiliary and connected services	
Generating station	Noise
Oxygen works	Noise
Boiler shop	Noise
f) Means of transport	
Crane operating stations	Air-conditioning, working postures, visibility, operation
Locomotive motor tractor operating stations	Working postures, visibility, operation
Coupling and ranging wagons	Lighting
Handling appliances	Vibrations, shocks

g) Operating and supervisory stations

Operating and supervisory station, mechanized processes

Air-conditioning, visual observation, operation

h) Tools

Pneumatic hammers

Vibrations, noise, working postures

i) Various

New workplaces (LD top-blowing process)

Pollution

Principal stresses observed in iron and steel workplaces

Nature of principal stress

Workplace, activity

a) Climate

- Thermal radiation

Blast-furnace casting
Steelwork furnaces (open hearth, Thomas, oxygen)
Restoring and removing refractory linings of furnaces, etc.
Roof of coke ovens
Charging of furnaces

- Other climatic factors

Cabins and other air-conditioned sites in a hot and polluted atmosphere

b) Noise

Shearing of thick plate
Roller-track for thick plate
Pickling lines, sheet
Generating station
Oxygen works
Boiler shop
Pneumatic tools

- c) Air pollution
(dust and gases)
- Blast-furnace casting
Removing of refractory linings
of furnaces, etc.
Roof of coke oven
Charging furnaces
Casting and deseaming of
steel containing lead
Air-conditioned installations
in polluted atmosphere
New workplaces, e.g. for
LD top-blowing process
- d) Working postures
(during physical work)
- Removing and restoring
refractory linings of furnaces, etc.
Packing of sheet
Inspection of tinplate
Pneumatic tools
- e) Machine operation
(sensomotor stress)
- Crane cabins
Locomotive motor tractor cabins
Control of mechanized processes
- f) Vibrations, etc.
- Pneumatic tools
Hoisting appliances subject to
vibration or shocks (mechanical
shovel, fork lift truck, etc.)
- g) Lighting
- Coupling and ranging wagons
Inspection and packing of
tinplate

ADDENDUM

The foregoing list was drawn up at the time the programme was launched. In the meantime a number of changes may have taken place within undertakings, certain workplaces having been discarded and others introduced following the progress made in mechanization and automation. It is obviously essential to take these new workplaces into account. The list given in this document is therefore intended at present to serve purely as a guide.

COMMISSION OF THE EUROPEAN
COMMUNITIES

Directorate-General
for Social Affairs

Luxembourg, 12 November 1975

COMMUNITY ERGONOMICS ACTION
1974-1978

Three levels of activity : Community
national
company

A. Community level

1. Within the framework of a research programme (ECSC social research in the "work physiology and psychology" sector), to promote the development of ergonomics in industry.

2. Existing structures to be used :

- the Sub-Committee for Producers and Workers (Appendix 1) is to take on the task of providing general guidelines for action in ergonomics compatible with the development of the ECSC industries; the Sub-Committee is to decide which projects are to be carried out (see C) after receiving opinions from the Advisers;
- the Advisers (+) are to assist the ergonomics groups (see B), organise with the Secretariat's aid, the collaboration of these groups at the Community level and express their opinion on individual projects and review the results obtained. The Advisers will be appointed for the duration of the programme;
- the Secretariat (++) is to resolve the practical problems of collaboration between ergonomics groups and assisted by the Commission, is to disseminate to companies all useful information (including that on other Community programmes relating to the work in hand);
- the Commission (+++) is to manage the financial contributions of the Community and publish the results obtained within the framework of the Community's social policy.

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B. National level

Creation of ergonomics groups for "iron and steel" and "coal". The function of these groups is to promote and co-ordinate the completion of projects (see C) in each field. For both groups :

1. Collaboration of one producer member and one worker member of the Sub-Committee for Producers and Workers in occupational medicine and accident protection. A limited number of persons to be invited :
 - on the basis of their scientific competence and industrial experience;
 - in order to expedite work relating to information and training (in collaboration with competent associations and institutes).

First meeting, appointment of a chairman.

- 2.a. With the Secretariat's assistance, to write to all companies in the field asking them to inform the competent company bodies of the programme, to arouse their interest and ask them for any suggestions they may have on concrete projects (+). Direct contact between members of the group and companies demonstrating their interest.
- b. Initial selection of projects and ideas presented by companies. Where necessary, contact with those who have drawn them up.
- c. Initial assessment of preparatory work and how work is to be coordinated. Decision on the possible need for a "co-ordination contract" (in cases of more than three simultaneous projects) :
 - financial means (meetings, training activities);
 - type of contract (one of the professional organizations in the area may act as a trustee or the group may form a non-profit-making organisation (++)).
- d. Projects to be sent to Luxembourg.

(+) Possible contents of the letter :

- a. reference to studies already under way and to information available;
- b. the new programme; the group and its objectives;
- c. ergonomics projects : definitions, benefits to be gained, conditions;
- d. invitation to reply before a prescribed date.

(++) In this case, the group may extend its activities to cover other areas.

- 3.a. Those responsible for the projects are to be included in the group.
- b. Training and information work. Training activities will be limited to those actually working in the projects. Information activities will be handled by those involved in the projects at various levels. Moreover, the groups will handle any specific information programmes undertaken by the Commission at the request of professional organisations.
- c. Execution of projects (independent contracts between the Commission and the various bodies).

C. Company level

Ergonomics projects and their implementation. As far as possible these will meet the following conditions :

Objective : to improve working conditions by acting on production methods and/or their implementation.

Kind of action : this will take the form of an experiment conducted under real (on-site) working conditions; results obtained should be applicable to other areas. The experiment is to be managed by an inter-disciplinary group, either mixed (company personnel and outside experts) or internal (company personnel only).

Assessment conditions and criteria : the system employed should be compatible with the entire production process under normal working schedules and should be acceptable to the worker. Workers belonging to the production unit in question will receive preliminary information and will take part in the initial examination and assessment of the system designed; they will also be informed of the conclusions reached.

Decisions : a company committee on working conditions with members representing both workers and employers, will make decisions relating to :

- the nature of the inter-disciplinary group and the way in which projects are to be carried out;
- the adoption of the experimental system and its extension to other jobs if this is considered necessary.

In the event that such a committee is not formed, such decisions will be made by the two social parties (workers and employers) who may set up a mixed working party for the duration of the project.